

Formulation of initial boundary value problems in the theory of multilayer thermoelastic thin bodies in moments

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Abstract: Proceeding from three-dimensional formulations of initial boundary value problems of the three-dimensional linear micropolar theory of thermoelasticity similar formulations of initial boundary value problems for the theory of multilayer thermoelastic thin bodies are obtained, as well as for rigid in the transverse direction thin bodies under a new parameterization of the domain of a thin body. The initial boundary value problems for thin bodies were also obtained in the moments with respect to systems of orthogonal polynomials. We consider some particular cases of formulations of initial boundary value problems. Acknowledgements: this research were supported by the Shota Rustaveli National Science Foundaiton (project no. DI-2016-41) and the Russian Foundation for Basic Research (project no. 15-01-00848-a).

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